

CLAIM AMENDMENTS

1. (Currently Amended) A method ~~to monitor~~ of monitoring a network switch ~~by a monitor device, said network switch~~ having a plurality of regular ports between which network traffic data packets are forwarded and a mirror port, ~~said mirror port being able to mirror network traffic for at least one of said regular ports, said network switch coupling to said monitor device through said mirror port, said network traffic comprising data packets forwarded between two of the plurality of regular ports,~~ comprising:

- (1) — selecting at least one of said regular ports;
- (2) — mirroring a data packet of the selected port to said mirror port;
- (3) — ~~forwarding said data packet to a monitor device;~~
- (4) — extracting the network address information of said mirrored data packet ~~in said monitor device;~~
- (5) — determining port information of said network address information; and
- (6) — performing network analysis of said network switch.

2. (Currently Amended) The method ~~to monitor a network switch according to~~ of claim 1, wherein said port information ~~refers to~~ comprises physical information of said network address information in said network switch.

3. (Currently Amended) The method ~~to monitor a network switch according to claim 2 of~~ claim 1, wherein said ~~determining step comprising:~~ port information determination comprises interrogating said network switch to obtain said port information using said network address information.

4. (Currently Amended) The method ~~to monitor a network switch according to~~ of claim 3, wherein said ~~interrogating step comprising:~~ interrogation comprises:

sending a first request to said network switch requesting a port index corresponding to said network address information; and

sending a second request to said network switch requesting said port information corresponding to said port index.

5. (Currently Amended) The method ~~to monitor a network switch according to~~ of claim 4, wherein said first request and said second request are SNMP requests.

6. (Cancelled).

7. (Currently Amended) The method ~~to monitor a network switch according to claim 5 of~~ claim 1, wherein said ~~determining step comprising:~~ port information determination comprises placing said mirrored data packet in a first-in-first-out buffer waiting for responses from said network switch.

8. (Currently Amended) The method ~~to monitor a network switch according to~~ of claim 7, wherein said ~~determining step further comprising:~~ port information determination further comprises releasing said mirrored data packet from said first-in-first-out buffer after said network switch responds to said SNMP requests.

9. (Currently Amended) The method ~~to monitor a network switch according to~~ of claim 7, wherein said ~~determining step further comprising:~~ port information determination further comprises releasing said mirrored data packet from said first-in-first-out buffer after a predetermined period of time.

10. (Currently Amended) The method ~~to monitor a network switch according to~~ of claim 1, further comprising: maintaining at least one lookup table correlating said network address information with said port information.

11. (Currently Amended) The method ~~to monitor a network switch according to~~ of claim 1, wherein said network address information comprises a source address of said mirrored data packet.

12. (Currently Amended) The method ~~to monitor a network switch according to~~ of claim 1, wherein said network address information comprises a destination address of said mirrored data packet.

13. (Currently Amended) The method ~~to monitor a network switch according to~~ of claim 1, wherein said network switch is a routing switch.

14. (Currently Amended) A method to monitor a network switch ~~by a monitor device~~, comprising:

(1)——obtaining at least a portion of data packets being handled by said network switch ~~to said monitor device~~, wherein each of said data packets comprises network address information;

(2)——extracting, ~~in said monitor device~~, said network address information ~~of~~ from said data packets;

(3)——determining ~~the~~ port information of said network address information; and

(4)——performing network analysis of said network switch using said port information.

15. (Currently Amended) The method ~~to monitor a network switch according to~~ of claim 14, wherein said port information ~~refers to~~ comprises physical information of said network address information in said network switch.

16. (Currently Amended) The method ~~to monitor a network switch according to claim 14 of~~ claim 14, said network switch having a plurality of regular ports and a mirror port, said mirror port being able to mirror network traffic for at least one of said regular ports, ~~said network switch coupling to said monitor device through said mirror port, wherein the data packets are forwarded from said network switch to said monitor device through said mirror port, wherein said portion of~~ data packets are obtained from said mirror port.

17. (Currently Amended) The method ~~to monitor a network switch according to claim 16 of~~ claim 14, wherein said network address information ~~of said data packets~~ comprises source addresses.

18. (Currently Amended) The method ~~to monitor a network switch according to claim 16 of~~ claim 14, wherein said network address information ~~of said data packets~~ comprises destination addresses.

19. (Currently Amended) The method ~~to monitor a network switch according to claim 16 of~~ claim 14, said network switch comprising a plurality of regular ports, wherein said data packets are ~~forwarded to said monitor device~~ obtained by passively tapping at least one of said regular ports.

20. (Currently Amended) The method ~~to monitor a network switch according to claim 16 of~~ claim 14, wherein said ~~determining step comprising:~~ port information determination comprises interrogating said network switch to obtain said port information using said network address information.

21. (Currently Amended) The method ~~to monitor a network switch according to~~ of claim 20, wherein said ~~interrogating step comprising~~ interrogation:

sending a first request to said network switch requesting a port index corresponding to said network address information; and

sending a second request to said network switch requesting said port information corresponding to said port index.

22. (Currently Amended) The method ~~to monitor a network switch according to~~ of claim 21, wherein said first request and said second request are SNMP requests.

23. (Currently Amended) The method ~~to monitor a network switch according to claim 22 of~~ claim 21, wherein said ~~determining step comprising:~~ port information determination comprises placing said data packets in a first-in-first-out buffer waiting for responses from said network switch.

24. (Currently Amended) The method ~~to monitor a network switch according to~~ of claim 23, wherein said ~~determining step further comprising:~~ port information determination further comprises releasing said data packet from said first-in-first-out buffer after said network switch responds to said ~~SNMP~~ first and second requests.

25. (Currently Amended) The method ~~to monitor a network switch according to~~ of claim 23, wherein said ~~determining step further comprising:~~ port information determination further comprises releasing said data packet from said first-in-first-out buffer after a predetermined period of time.

26. (Currently Amended) The method ~~to monitor a network switch according to~~ of claim 14, further comprising: maintaining at least one lookup table correlating said network address information with said port information.

27. (Currently Amended) The method ~~to monitor a network switch according to~~ of claim 14, wherein said network switch is a routing switch.

28. (Newly Added) A method to monitor a network switch, comprising:  
obtaining at least a portion of data packets being handled by said network switch, wherein each of said data packets comprises network address information;

extracting said network address information from said data packets; and

determining port information of said network address information.

29. (Newly Added) The method of claim 28, further comprising performing network analysis of said network switch using said port information.

30. (Newly Added) The method of claim 28, wherein said port information comprises physical information of said network address information in said network switch.

31. (Newly Added) The method of claim 28, wherein said port information comprises physical information of said network address information in said network switch.

32. (Newly Added) The method of claim 28, said network switch having a plurality of regular ports and a mirror port, said mirror port being able to mirror network traffic for at least one of said regular ports, wherein said portion of data packets are obtained from said mirror port.

33. (Newly Added) The method of claim 28, wherein said network address information comprises source addresses.

34. (Newly Added) The method of claim 28, wherein said network address information comprises destination addresses.

35. (Newly Added) The method of claim 28, said network switch comprising a plurality of regular ports, wherein said data packets are obtained by passively tapping at least one of said regular ports.

36. (Newly Added) The method of claim 28, wherein said port information determination comprises interrogating said network switch to obtain said port information using said network address information.

37. (Newly Added) The method of claim 36, wherein said interrogation:

sending a first request to said network switch requesting a port index corresponding to said network address information; and

sending a second request to said network switch requesting said port information corresponding to said port index.

38. (Newly Added) The method of claim 37, wherein said first request and said second request are SNMP requests.

39. (Newly Added) The method of claim 37, wherein said port information determination comprises placing said data packets in a first-in-first-out buffer waiting for responses from said network switch.

40. (Newly Added) The method of claim 39, wherein said port information determination further comprises releasing said data packet from said first-in-first-out buffer after said network switch responds to said first and second requests.

41. (Newly Added) The method of claim 39, wherein said port information determination further comprises releasing said data packet from said first-in-first-out buffer after a predetermined period of time.

42. (Newly Added) The method of claim 28, further comprising: maintaining at least one lookup table correlating said network address information with said port information.

43. (Newly Added) The method of claim 28, wherein said network switch is a routing switch.

44. (Newly Added) The method of claim 28, further comprising associating the port information with information contained in the data packets.

45. (Newly Added) The method of claim 44, further comprising performing network analysis of said network switch using said port information and associated data packet information.